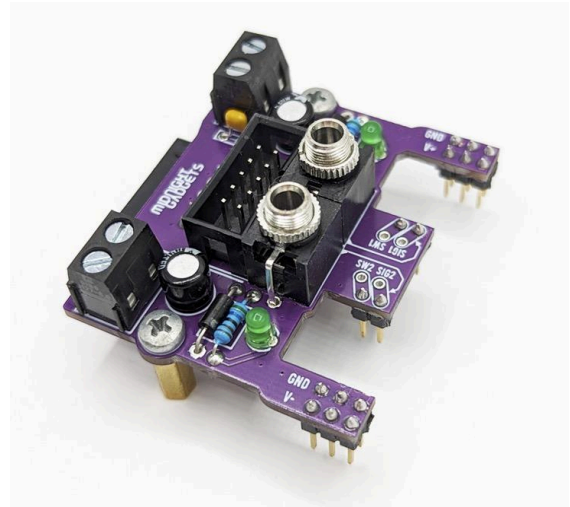


PROTOMATE is a little helper for breadboard.
It makes work cleaner, easier and faster.

Designed with 10 pins Headers in order to be Eurorack friendly but not only that.

Many ProtoMate boards can be daisy chained together through IDC connectors/flat ribbon cable or eventually power an additional device or Eurorack module.

The project comes unsoldered as a DIY project. The assembly typically requires 15 minutes and doesn't require particular skills.



NOTE:

Not all the breadboards are designed the same way: some have lateral power bus holes aligned with those in the central section, while others have these holes slightly shifted.

Two distinct soldering positions are available for the pins located in the central section (relative to the audio jacks), allowing a precise alignment tailored to the specific breadboard configuration.

Features:

- both IDC cable sockets (2x5) are equipped with security slots to prevent the incorrect insertion of cables.
- The two LEDs on the boards indicate power status for each rail: V+ expects positive voltage, V- expects negative voltage. These remain unlit in the event of incorrect wiring or improper connections.
- The 2 diodes provide protection against the risk of reverse polarity electrical connections.
- The board is equipped with 2x 47uF electrolytic capacitors, enhancing power line stability, in addition to 2x 100nF ceramic capacitors, which can potentially filter out ripples.
- ProtoMate features 2x 3.5mm mono Jack socket with switch that is normalized to the signal. Those are labeled as SIG1/SW1 (signal 1, switch 1) on one side, and SIG2/SW2 (signal 2, switch 2) on the other side.
- The 2 resettable fuses provide short circuit protection. When the current draw of each channel exceeds 400mA, the fuses will start to interrupt the flow.

Specifications:

Voltage max: +- 25V

Hold current: 400mA - Trip current: 800mA

V+ expects positive voltage only, V- expects Negative voltage only.

Both terminal block GNDs, Pins GND and Headers GND are tied together.

2*5 pin Headers are connected in parallel.

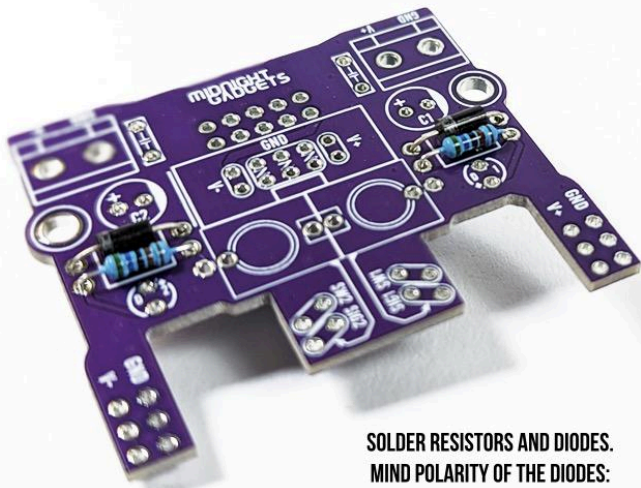


PLEASE NOTE

Two fuses have been added in order to add short circuit protection. It won't be shown below in the "Assembly procedure" but they can be simply soldered at the end. They are marked F1 and F2. They can be placed both ways since they don't have polarity.

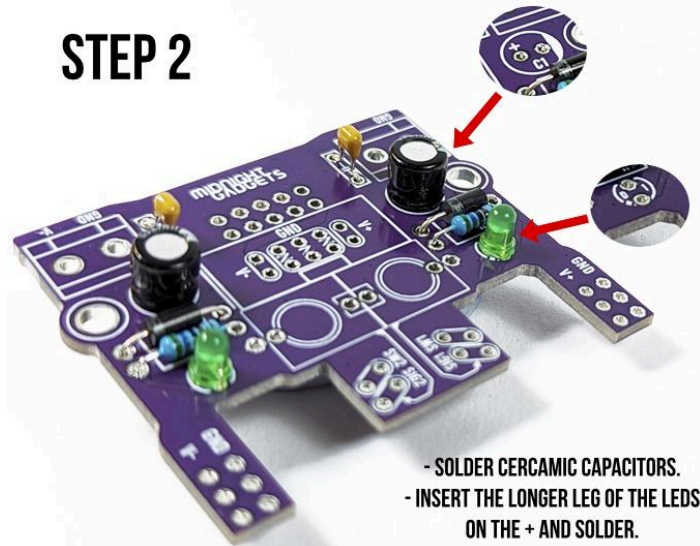
ASSEMBLY PROCEDURE

STEP 1



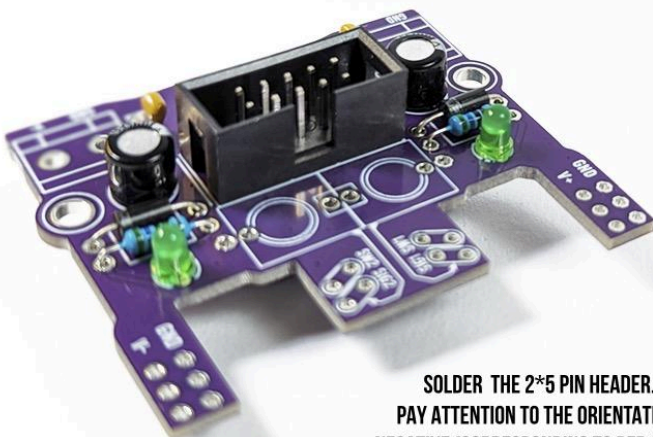
SOLDER RESISTORS AND DIODES.
MIND POLARITY OF THE DIODES:
THE GREY STRIPE/NEGATIVE/CATHODE
IS MARKED ON THE PCB

STEP 2



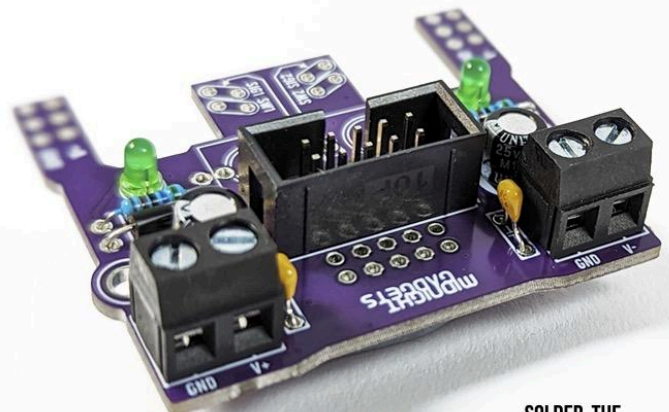
- SOLDER CERAMIC CAPACITORS.
- INSERT THE LONGER LEG OF THE LEDS
ON THE + AND SOLDER.
- INSERT THE LONGER LEG OF THE
ELECTROLYTIC CAPACITORS
ON THE "+" AND SOLDER.

STEP 3



SOLDER THE 2*5 PIN HEADER.
PAY ATTENTION TO THE ORIENTATION.
NEGATIVE (CORRESPONDING TO RED STRIPE
ON THE RIBBON CABLE) IS ALSO MARKED
WITH A LINE ON THE PCB AT THE SIDE OF THE
HEADER.

STEP 4



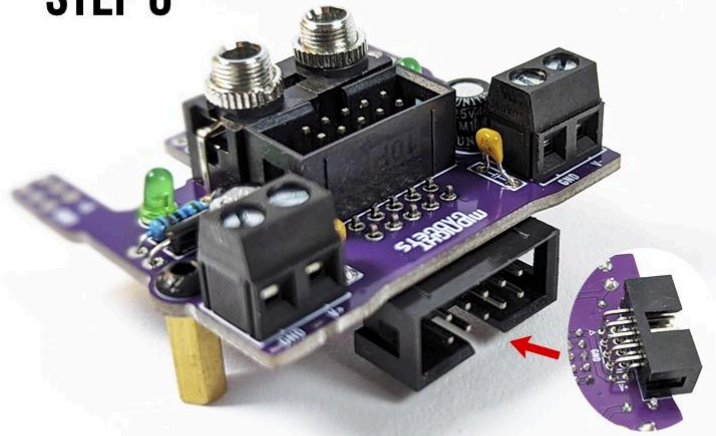
SOLDER THE
SCREW TERMINAL BLOCKS

STEP 5



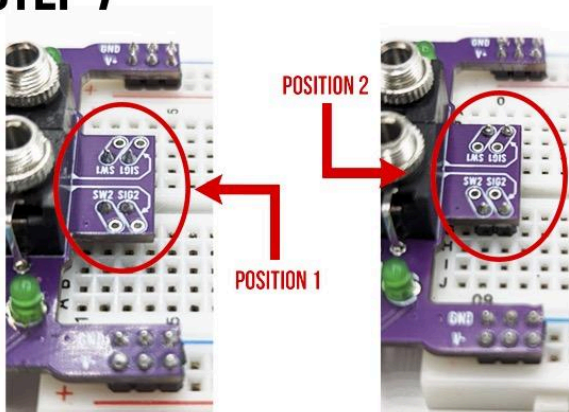
SOLDER THE MONO
THONKICONN 3.5MM JACKS

STEP 6



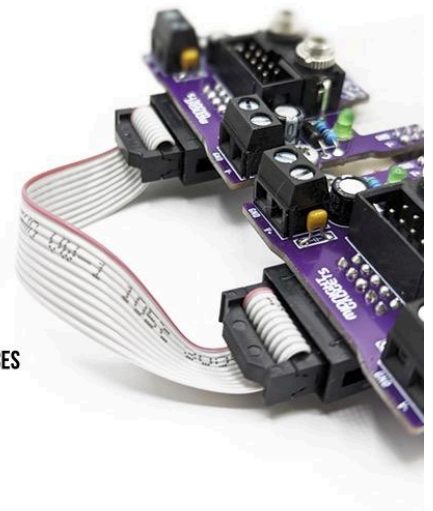
SCREW THE SPACERS TO THE BOARD WITH
THE 3MM SCREWS
AND SOLDER THE ANGULAR 2*5 PIN HEADER
PLACED AT THE BOTTOM OF THE BOARD

STEP 7



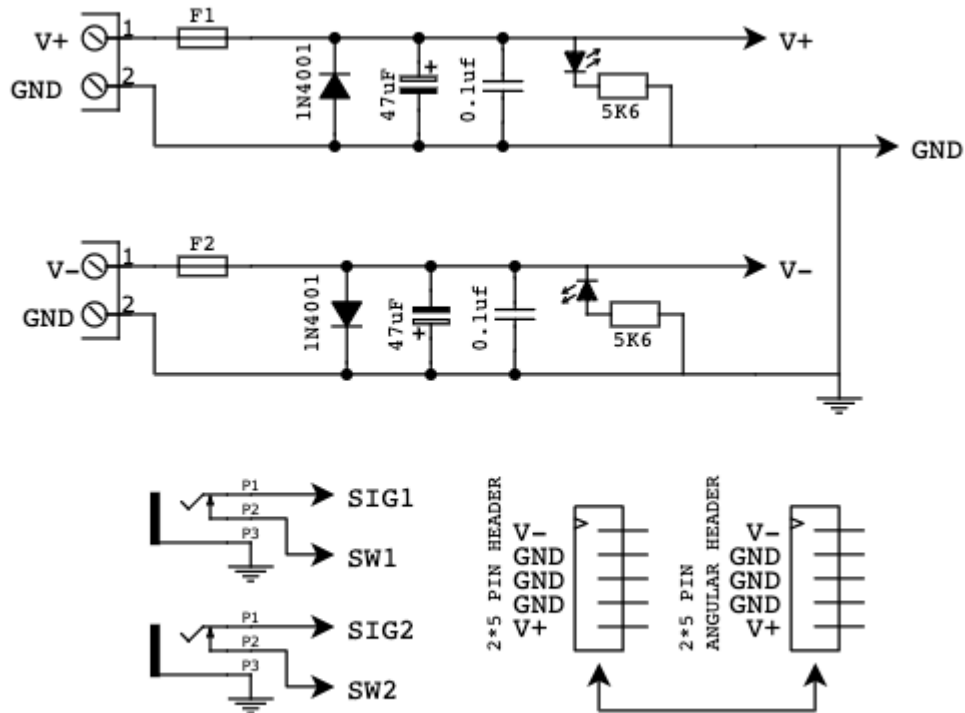
AT FIRST, SOLDER ONLY THE DOUBLE ROW
PINS ON THE POWER RAILS ON THE SIDES.
AFTER THAT CHECK IF YOUR BREADBOARD'S
CENTER PINS FIT IN POSITION 1 OR 2.
SOLDER ACCORDINGLY.

STEP 8



PLUG THE 2*5 HEADERS TO AN
EURORACK MODULE OR OTHER DEVICES
VIA THE FLAT RIBBON CABLE
AT THE BOTTOM OR AT THE TOP
OR
DAISY CHAIN MULTIPLE
PROTOMATE BOARDS

CIRCUIT



Any questions, drop me a message at midnightgadgets@proton.me

